

CLAIMS

1. A method for screening molecules according to which, in vitro:

- 5 a/ the p116 subunit (SEQ ID 4) of the eIF3 protein, the nucleotide sequence of region II (SEQ ID 2) of the HCV IRES or any sequence containing at least 10 successive nucleotides of region II (SEQ ID 2) of the HCV IRES, and the molecule to be tested are incubated together,
- 10 b/ the possible formation of p116/IRES region II complexes is then detected, an absence of complex reflecting the inhibitory capacity of the molecule tested, to inhibit the formation of said complexes,
- 15 c/ the molecules that inhibit the formation of the complexes are selected.

2. The method as claimed in claim 1, characterized in that only the sequence of the recognition motif of the p116 protein (SEQ ID 5) is incubated.

20

3. The method as claimed in claim 1, characterized in that only part of region II is incubated and corresponds to the consensus nucleotide sequence SEQ ID 3 or a sequence comprising at least 8 successive nucleotides of the sequence SEQ ID 3.

25

4. The method as claimed in claim 1, characterized in that the molecule to be tested is incubated at increasing doses.

30

35

5. The method as claimed in claim 1, characterized in that the detection is carried out by filtration of the mixture through a nitrocellulose membrane, and then by measurement of the radioactivity attached to the membrane, corresponding to the amount of RNA bound to the membrane.

6. The method as claimed in claim 1, characterized in that the influence of the molecule selected in c) on the cap-independent translation and the cap-dependent translation is then tested, ex vivo, so as to select only the molecules that inhibit the cap-independent translation without influencing the cap-dependent translation.

7. The method as claimed in claim 6, characterized in that bicistronic vectors are constructed, consisting of two luciferases framing the sequence of region II (SEQ ID 2) or any sequence containing at least 10 successive nucleotides of region II (SEQ ID 2), or the consensus sequence (SEQ ID 3) or a sequence comprising at least 8 successive nucleotides of the sequence SEQ ID 3; the first luciferase being translated in a cap-dependent manner and the second in a cap-independent manner, or vice versa.

8. The use of the molecules selected at the end of the screening method that is the subject of one of claims 1 to 7, for producing a medicinal product intended for the treatment of hepatitis C (HCV), of classical swine fever (CSFV), or of bovine viral diarrhea (BVDV).

9. The use of an aminoglycoside for producing medicinal product intended for the treatment of hepatitis C (HCV), of classical swine fever (CSFV), or of bovine viral diarrhea (BVDV).

10. The use as claimed in claim 9, characterized in that the aminoglycoside is tobramycin.

11. A pharmaceutical composition comprising an
5 antisense oligonucleotide complementary to the sequence
SEQ ID 3 or to any sequence comprising at least 8
successive nucleotides of the sequence SEQ ID 3, with
the exception of the oligonucleotides of sequence
TAGACGCTTTCTGCGTGAAGACAGTAGT, GAAGACAGTAGTTCCTCACAGGGGA
10 GTG or GCCATGGCTAGACGCTTTCT.

12. The use of an antisense oligonucleotide
complementary to the sequence SEQ ID 3 or to any
sequence comprising at least 8 successive nucleotides
15 of the sequence SEQ ID 3, with the exception of the
oligonucleotides of sequence TAGACGCTTTCTGCGTGAAGACAG
TAGT, GAAGACAGTAGTTCCTCACAGGGGAGTG or GCCATGGCTAGACGCTT
TCT, as a medicinal product for the treatment of
hepatitis C (HCV).

20